CLAIMS

<u>What is claimed is:</u>

1. A data transmission scheduling system implemented on a mobile communication device for arranging a data update and download plan using the transmission character of a wireless network, which comprises:

> a schedule defining module, which defines a schedule task for the data to be transmitted and sets a schedule condition for the schedule task;

> a schedule adding module, which adds the schedule task defined in the schedule defining module to a schedule queue in the data transmission scheduling system;

> a schedule removal module, which removes the executed and completed schedule task from the schedule queue constructed in the schedule adding module;

> a schedule executing module, which executes the schedule task satisfied the schedule condition constructed in the schedule defining module;

> a self-adjusting transmission module, which detects network communications conditions and automatically adjusts the execution time for the schedule executing module to execute the schedule task; and

> a system starting module, which starts the data transmission scheduling system, monitors the running of the schedule defining module, the scheduling adding model, the schedule removal module, the schedule executing module, and the self-adjusting transmission module and becomes a routine.

2. The system of claim 1, wherein the data transmission scheduling system further comprises a schedule diary module to store the schedule task execution result.

3. The system of claim 1, wherein the schedule condition is selected from the group consisting of a transmitted data location, an execution time, and a number of execution times.

4. The system of claim 3, wherein the transmitted data location is selected from the group consisting of a server address, a file address, and a command for generating a file on a server.

5. The system of claim 3, wherein the execution time is selected from the group consisting of the current task execution time, the next task execution time, and the time interval of a repeated task.

6. The system of claim 1 further comprising a database forming a set of records.

7. The system of claim 6, wherein the record is selected from the group consisting of a schedule task record, a schedule queue record, and a schedule diary.

8. A data transmission scheduling method implemented in a mobile communication device for arranging a data update and download plan using the transmission character of a wireless network, which comprises the steps of:

    defining a schedule task of data transmissions;

    adding a defined schedule task to a schedule queue;

    confirming a schedule condition of the schedule task; and

    transmitting the schedule task corresponding to the satisfied schedule condition.

9. The method of claim 8 further comprising, after the step of transmitting the schedule task corresponding to the satisfied schedule condition, the steps of:

    preparing the data through a server;

    transmitting the data to the mobile communication device; and

recording the execution result of the schedule task.

10. The method of claim 8, wherein the step of defining a schedule task of data transmissions further comprises the steps of modifying and adding.

11. The method of claim 10, wherein the modifying step further comprises the steps of:

5   checking a schedule queue record;

displaying the schedule queue;

calling a schedule removal module to remove the already executed schedule tasks from the schedule queue; and

calling a schedule adding module to add the defined schedule task to the
10   schedule queue in the data transmission scheduling system.

12. The method of claim 10, wherein the adding step further comprises the steps of:

editing the schedule queue; and

calling a schedule adding module.

13. The method of claim 8, wherein the step of adding the defined schedule task to the
15   schedule queue further comprises the steps of:

adding the schedule task;

setting a string;

generating a data transmission; and

adding the data transmission to the schedule queue.

20   14. The method of claim 8, wherein the step of transmitting the schedule task

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corresponding to the satisfied schedule condition further comprises the steps of:

        calling a self-adjusting transmission module to automatically adjust the execution time of the schedule task;

        executing the data transmission;

5   calling a schedule diary module to record the execution result of the schedule task;

        calling a schedule adding module; and

        calling a schedule removal module.

    15. The method of claim 14, wherein the step of calling the self-adjusting transmission

10   module further comprises the steps of:

        sending out a channel status detection command;

        deleting the schedule task from the schedule queue;

        generating a new schedule task; and

        adding the new schedule task to the schedule queue.

15   16. The method of claim 14, wherein the step of calling the schedule removal module further comprises the steps of:

        checking a record;

        deleting the schedule task;

        deleting a schedule diary; and

20   deleting the record.

17. The method of claim 16, wherein the record is selected from the group consisting of a schedule task record, a schedule queue record, and the schedule diary.

18. The method of claim 8, wherein the schedule task comprises a plurality of repeated transmissions.

5   19. The method of claim 8, wherein the data transmission scheduling system uses a self-adjusting transmission technology to detect the wireless network communication conditions before data transmissions in order to automatically adjust the execution time of the schedule task.

20. The method of claim 8, wherein the data are selected from the group consisting of
10   static files and data dynamically generated by executing commands over the server.

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